PHP13

FACTORS ASSOCIATED WITH THE PROVISION OF LAPAROSCOPIC SURGERY IN THAILAND: RESULTS FROM THE NATIONWIDE INPATIENT DATABASE

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OBJECTIVES: Laparoscopic surgery (LS) requires advanced and expensive surgical instruments but offers better quality of life and shorten hospitalization compared to conventional surgery. This study aimed to evaluate the utilization of LS between patients under Civil Servant Medical Benefit scheme (CSMBS) and those under Universal Coverage scheme (UC) and to determine the factors associated with the provision of LS in most common diseases. **METHODS:** A hospital data of patients undergoing LS were obtained from the Central Office for Healthcare Information. The database contained 686,553 admissions with principle diagnoses related to LS from January 2005 to December 2007. Descriptive analyses and binary logistic regression models were used to analyze the data. **RESULTS:** The total of 24,175 hospitalizations (3.52%) was operated with LS. The proportion of CSMBS patients undergoing LS (7.8%) was higher than that of UC patients (2.68%). It was found that diseases of gallbladder and cholecystitis, diseases of gynecology and acute appendicitis were the most diseases performing LS in Thailand. The provision of LS was significantly associated with age, sex, principal diagnosis, admission year, type of hospitals and type of health insurance coverage. Patients with CSMBS were about two or three times more likely to undergo LS compared to UC. Type of health insurance was the most significant factor associated with the use of LS. **CONCLUSIONS:** There is an unequal access to LS among patients owing to both medical and nonmedical indications. Health insurance coverage plays a significant role in LS provision in Thailand.

PHP14

PHARMACEUTICAL PROCUREMENT AND SUPPLY CHAIN IN PUBLIC AND PRIVATE SECTOR IN DELHI, INDIA

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OBJECTIVES: In India, medicines are dispensed free in the public sector facilities. However, due to low availability of medicines in the public facilities, 80% of healthcare expenditure is out-of-pocket. The survey was conducted to investigate the procurement system and distribution of medicines in the public sector and supply chain in private sector in National Capital Territory of Delhi (NCT, Delhi). **METHODS:** The majority of public health care in Delhi is provided by central government and the government of NCT Delhi; there are two additional public sector providers, Municipal Corporation of Delhi and New Delhi Municipal Corporation of Delhi. Procurement system and distribution in each of the four public sectors was studied. For private sector data was collected from reliable wholesalers and retailers by liaising with their association to know the details of mark ups in the supply chain. **RESULTS:** Each public sector entity has its own procurement list and procurement system. Procurement for central government hospitals and dispensaries is handled separately by a government agency that charges fees. In case of stock outs or non-availability of rate control of medicines tertiary care hospitals and central government dispensaries can do local purchase. Medicines bought as local purchases are usually more costly and rarely undergo the same quality assurance checks. In the private sector medicine distribution is characterized by a high number of generic equivalents and high levels of competition at each level of the system. Manufacturer can only sell to a licensed wholesaler; wholesaler can only sell to licensed retailers. Trade schemes run between manufacturer, wholesaler and retailer. **CONCLUSIONS:** Several strengths and weaknesses in the public procurement systems were observed. Huge amount of local purchases were reported. Patients do not get benefit from trade schemes; manufacturers and retailers are the beneficiary. Policy and regulatory interventions are needed to improve access and affordability of medicines.

HEALTH CARE USE & POLICY STUDIES – Formulary Development

PHP15

RISK-SHARING SCHEMES WORLDWIDE: A LANDSCAPE ANALYSIS OF HEALTH OUTCOMES-BASED REIMBURSEMENT AGREEMENTS

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OBJECTIVES: To assess and analyze the number, type, and extent of risk-sharing agreements worldwide based on published literature. **METHODS:** A structured literature review using predefined search criteria was conducted to identify references to, or descriptions of, health outcome-based risk-sharing agreements within peer-reviewed and trade publications between the years of 2000–2010. The identified publications were categorized by strength of evidence (i.e., systematic or non-systematic), and then aggregated by type of agreement, technology, and companies involved within the agreement. Analysis was completed to demonstrate commonalities among identified agreements as well as their unique aspects. **RESULTS:** Five database and publication sources were reviewed using 17 predefined search terms. The literature review suggests that many risk-sharing agreements are not published and those that are vary widely in design, scope, and intent. The search resulted in 61 abstracts which identified eight individual published risk-sharing schemes. While all identified agreements link improvements in health outcomes with reimbursement, definitions of what constitutes improved health outcomes, as well as the type of evidence required to prove that improvement, varied dramatically. The published risk-sharing schemes were from the UK (n = 3), United States (n = 3), France (n = 1), and Sweden (n = 1). There is more publically available information on agreements outside of the United States, but it is unclear the extent to which this is due to greater transparency in reimbursement versus a reflection of more risk-sharing agreements. **CONCLUSIONS:** Health outcomes-based risk-sharing agreements offer the potential for both benefit and frustration to manufacturers and payers alike. The ability to review progress within this field to-date and attempt to offer trends toward best practices will be key to the long-term viability of these novel reimbursement efforts. Despite the heterogeneity of agreement types, methods, and foci, successful utilization of these agreements has been achieved and could potentially offer a guide for replication in future use.

HEALTH CARE USE & POLICY STUDIES – Health Care Costs & Management

PHP16

A COMPREHENSIVE STUDY OF GENERIC DRUG ENTRY IN THE UNITED STATES: 1991–2008

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OBJECTIVES: It is commonly believed that after the patent expires for a branded pharmaceutical, the average price for the generic compound falls following generic entry into the market. The objectives of this study were to 1) determine and explain the trend in drug price post-entry, and 2) predict the number of generic-company entrants, one of the most likely factors influencing price; and to accomplish 1) and 2) in a more comprehensive manner than previously in the literature. **METHODS:** Quarterly transaction-price data were constructed using the national summary file of Medicaid outpatient drug utilization maintained by the Centers for Medicare and Medicaid Services. Data from 1991–2008 were extracted for 65 drugs that experienced initial generic entry between 1992 and 2004. Generic relative price (GRP) was constructed as reimbursement per unit for a specific firm and quarter divided by average reimbursement per unit over the year before entry, not accounting for pharmaceutical manufacturer rebates. Least-squares regression models were estimated on the panel data to explain GRP, average GRP across firms (AGRP), and number of entrants. **RESULTS:** The number of firms had a statistically significant ($P < 0.0001$), nonlinear negative effect on GRP and AGRP. High demand, as indicated by high post-entry expenditures, had a statistically significant ($P < 0.0001$) positive effect on both GRP and AGRP. Statistically significant ($P < 0.0001$) predictors for number of entrants included pre-entry market size, number of quarters since entry, and administration form (oral, injectable, or topical) of the drug. Evidence suggests as well that rebranding following generic entry commands a price premium. **CONCLUSIONS:** This study generally supports the common wisdom, from prior econometric studies, that drug prices fall following generic entry. However, other factors, such as small market size or rebranding, can mitigate or even reverse the post-entry price drop, reducing the ability of payers to benefit from significant cost savings.

PHP17

MEASURING MEDICATION RECONCILIATION'S IMPACT ON THE FINANCIAL COST

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OBJECTIVES: Medication reconciliation is the process to review patients' complete medication regiments at all the time of transitions of care and compare patients' existing and previous medication with the regiments being considered for the new setting of care. The objective of this study is to implement medication reconciliation to reduce drug-therapy problems and errors, and to evaluate the financial impact of these approaches in Taiwan. **METHODS:** The criteria for cases recruiting in this study were patients staying in the academic medical center for more than 3 days. Nevertheless, the patients with cancer or admitted to the ICU were excluded. Pharmacists reviewed the patients' admission charts and compared the patients' medication regiments at present and past. Once the inconsistence medications were identified, pharmacists would discuss with the multispecialty team consisting of physicians, pharmacists and nurses to ensure if therapy should be adjusted. The determination of financial impact is expressed by cost avoidance per year in Taiwan. **RESULTS:** The data from the study suggests approximately 11.07% of drug-related problems were identified and prevented by pharmacists through medication reconciliation. This can be translated into approximately 350,697 episodes per year in Taiwan (based on the assumption for total hospitalization of about 3,168,000 persons per year). The estimated cost avoidance will be as high as NT 1941 million per year (based on the assumption for cost of prolonged length of hospital stay is about NT 5000) through achieving the medication reconciliation at admission. **CONCLUSIONS:** This study demonstrated that the pharmacists' interventions were able to prevent potential adverse drug events, reconcile discrepancies among medications, and reduce medical expenditure as well. Effective assurance in medication safety is also achieved through the collaboration of multiple disciplines in patient care.